

REMARKS

Claims 1, 4-13 and 16 are pending. By this amendment, claims 1 and 9 are amended.

The Office Action rejects claims 1, 4-13 and 16 under 35 U.S.C. §112, first paragraph. This rejection is respectfully traversed.

The Office Action indicates that the claimed feature of “determining a beam current of the electron beam to be at least 100 nA based on a signal to noise ratio of an image of the defect and an inspection time” and the similar feature recited in claim 9 are not described in the original disclosure. However, it is respectfully submitted that this feature is disclosed on pages 28 and 29 of the application, for example. For example, as described on page 29, it is indicated that it is desirable to have a raw picture prior to picture processing with a signal to noise ratio of at least 10, and that the length of an inspection time required in an inspection of circuit patterns on a wafer is generally about 200 sec/cm<sup>2</sup>. Further, it is indicated that if the length of time required for an acquisition of a picture is about half the inspection time, the measurement time of one pixel is equal to or smaller than 10 nsec, and that in this case, since the number of electrons required per pixel is 6,000, it is necessary to set the electron beam current at at least 100 nA, as shown in Fig. 11. Thus, as seen in this description, the signal to noise ratio and inspection time are used to determine the beam current of at least 100 nA. Applicants request withdrawal of the rejection.

The Office Action rejects claims 1, 4, 9 and 10, under 35 U.S.C. §102 or, in the alternative, under 35 U.S.C. §103 over Feuerbaum, rejects claims 5, 6, 11 and 16 under 35 U.S.C. §103 over Feuerbaum in view of Meisburger, rejects claims 7 and 12 under 35 U.S.C. §103 over Feuerbaum in view of Rose, and rejects claims 8 and 13 under 35 U.S.C. §103 over Feuerbaum in view of Todokoro, all for the reasons set forth in the previous Office Action. However, it is respectfully submitted that none of the cited references disclose or suggest at least the step of deflecting the electron beam set to at least 100 nA beam current by taking a crossover as a fulcrum during a flyback period of a scanning operation, as recited in independent claim 1, or the corresponding deflector for deflecting said electron beam by taking a crossover as a fulcrum during a flyback period of a scanning operation, as recited in independent claim 9. According, claims 1

and 9 are not anticipated by, and would not have been obvious over, the applied references. The other claims being dependent from claims 1 and 9 would not have been anticipated or obvious for the same reasons. Accordingly, Applicants request withdrawal of the rejections.

For at least the above reasons, it is submitted the application is in condition for allowance. Prompt consideration and allowance are solicited.

The Office is authorized to charge any fees due under 37 C.F.R. § 1.16, 1.17 or 1.136 to Deposit Account No. 11-0600.

Should there be any questions concerning this matter, the Examiner is invited to contact Applicants' undersigned attorney.

Respectfully submitted,

Dated: 4/9/04

  
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